

DOCUMENT RESUME

ED 479 990

PS 031 551

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TITLE States' Efforts in Improving the Qualifications of Early Care and Education Teachers. NIEER Working Papers.
SPONS AGENCY Pew Charitable Trusts, Philadelphia, PA.
PUB DATE 2003-01-27
NOTE 46p.
AVAILABLE FROM National Institute for Early Education Research (NIEER), Rutgers, The State University of New Jersey, 120 Albany Street, Suite 500, New Brunswick, NJ 08901. Tel: 732-932-4350; Fax: 732-932-4360; e-mail: info@nieer.org; Web site: <http://nieer.org>. For full text: <http://nieer.org/resources/research/Ackerman.pdf>.
PUB TYPE Reports - Descriptive (141)
EDRS PRICE EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS *Child Care; Child Care Quality; *Child Caregivers; *Early Childhood Education; Educational Quality; *Preschool Teachers; Professional Development; *State Programs; Teacher Improvement; *Teacher Qualifications
IDENTIFIERS *Caregiver Qualifications

ABSTRACT

A significant research base supports the positive benefits of quality early care and education (ECE) for later developmental and academic outcomes. Noting that many ECE settings are of mediocre quality and that quality of care is related to teacher/caregiver qualifications, this working paper examines states' initiatives to improve the qualifications of ECE teachers. Information was gathered from published reports and websites of state and federal ECE initiatives. The following types of initiatives are described: (1) regulatory efforts to improve ECE teachers' qualifications, including barriers to improving qualifications; (2) financial professional development efforts, including a description of the Early Childhood Educator Professional Development Program as part of the No Child Left Behind Act; (3) career lattices; (4) apprenticeship efforts funded through the federal Quality Child Care Initiative; and (5) other efforts, including state curricula for the CDA credential and varied state reimbursement rates depending on teachers' educational qualifications. The paper concludes with a summary of specific practices that hold particular promise for helping to improve the credentials of ECE teachers, including fully financing ECE teacher education, overcoming language barriers to improving qualifications, helping nontraditional learners, improving articulation between community colleges and universities, and improving collaboration among institutions of higher education. (Contains 130 references.) (KB)

ED 479 990

States' Efforts in Improving the Qualifications Of Early Care and Education Teachers

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January 27, 2003

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Early care and education (ECE) is a "hot" topic these days. In addition to efforts already in place to provide universal preschool to all four-year olds in Georgia, New York, Oklahoma, and the District of Columbia (Blank, Behr, & Schulman, 2001; Gilliam & Zigler, 2000; Olson, 2002), voters in Florida, for example, recently approved a constitutional amendment to offer a free preschool to all of the state's pre-kindergarteners by 2005 (Hirschman, 2002), and the Packard Foundation is investigating ways to "make California a preschool model for the nation" (Corcoran, 2002, ¶ 2). These efforts seem to be particularly timely, as not only are over 60% of American preschoolers cared for by someone other than their parents much of the workweek (Bureau of Labor Statistics, 1999), but a significant research base supports the positive benefits of quality early care and education in regards to later developmental and academic outcomes (Peisner-Feinberg, et al., 1999), as well, particularly for lower-income children (Barnett, 1995, 1998, 2002; Bowman, Donovan, & Burns, 2001; Frede, 1998; Reynolds, 1995; Reynolds, Temple, Robertson, & Mann, 2001; Schweinhart & Weikart, 1997; Yoshikawa, 1995).

However, despite the attention paid to early care and education, other research has detailed the mediocre quality found in many ECE settings (Cost, Quality, and Child Outcomes Study Team, 1995). Although quality is arguably affected by structural variables such as child-teacher ratios, the number of children in a classroom, and teacher training and experience (Abbott-Shim, Lambert, & McCarty, 2000; Cryer, Teitze, Burchinal, Leal, & Palacios, 1999; Helburn & Howes, 1996; Howes & Brown, 2000; Saluja, Early, & Clifford, 2002), quality also relies on caregiving behaviors, interactions between teachers and children, and the types of activities available in an early care and education setting (Bowman, et al., 2001; Holloway, Kagan, Fuller, Tsou, & Carroll, 2001; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000; Shonkoff & Phillips, 2000). Most importantly, these latter aspects of quality are present more

often when ECE teachers have received education and training specifically related to early childhood (Bowman, et al., 2001; Honig & Hirallal, 1998; Howes, 1997; Whitebook, Howes, & Phillips, 1989), as "teacher expertise" is considered to be "the crucial ingredient" (Dwyer, Chait, & McKee, 2000, p. 6) in a high-quality early childhood environment.

If quality relies on teacher training, however, the average parent may have difficulty finding high-quality ECE, as the pre-service requirements for teachers who work in state-financed PreKindergartens (PreKs) and private ECE settings for our youngest children are markedly different than the qualifications in place for Kindergarten teachers (see Appendix). All 50 states require Kindergarten teachers to have a minimum of a Bachelor's (BA) degree, and some states also require endorsements or certifications that are specifically related to the early childhood field (Bureau of Labor Statistics, 2002; Kaye, 2001). Of the 40 states that offer state-financed preK, however, just over half require teachers in these programs to have a bachelor's degree in Early Childhood or another subject (NCEDL, 2001). Furthermore, only 21 states require that teachers in private ECE settings undergo *any* pre-service training, much less hold a degree in early childhood education (Azer, LeMoine, Morgan, Clifford, & Crawford, 2002; Mitchell, 2001). In the federally-funded Head Start program, only 50% of teachers nationwide must upgrade their educational qualifications from the current requirement of having a Child Development Associate (CDA) credential—which involves 120 clock hours of instruction on topics such as children's health, safety, and development (Council for Professional Recognition, 2000)—to obtaining an Associate's (AA), BA, or advanced degree in Early Childhood or a related field by September 30, 2003 ("Head Start Act," 1998).

Despite the fact that these inconsistent standards for early childhood teacher preparation and professional development are "situated within political, economic, regulatory, and

ideological frameworks that [can] constrain innovation" (Horn-Wingerd, Hyson, & Karp, 2001, p. 10), as a result of the link between quality and teacher training there are various efforts underway throughout the United States to encourage the existing staff who teach and care for three- and four-year olds to increase their qualifications and knowledge of early childhood practice. These initiatives include changes in the minimum pre-service or annual ongoing training one needs in order to work as a teacher, specifications regarding the types of trainings or knowledge ECE teachers need, financial assistance to pay for trainings and/or coursework, and career lattices that delineate pathways for continued learning and improved practice. Other initiatives are funded by the federal government, but spearheaded by individual organizations or institutions of higher education within individual states. Utilizing various published reports and the websites of state and federal early care and education initiatives, this paper not only outlines the barriers constraining these efforts, but highlights individual states' efforts to meet these challenges, as well. The paper then concludes with a summary of the specific practices that seem to hold particular promise for helping to improve the credentials of this country's early care and education teachers.

Regulatory efforts at improving ECE teachers' qualifications

Because of the research base linking teacher training with quality ECE, some states have employed regulatory efforts to improve the qualifications and credentials of ECE staff, raising the minimum pre-service requirements for teachers in private ECE settings (Azer, 1999; Azer & Bowie, 2000; Azer, et al., 2002; LeMoine, 2002):

- Alabama raised their pre-service training requirement from no hours in 1999 to 12 hours of training in child care & development.

- Florida raised the minimum pre-service clock hours in ECE training from 30 to 40.
- Massachusetts now requires entry-level teachers to complete a two-year vocational child care course. In 1999, teachers in private ECE settings only needed to have completed a high school vocational program in child care.
- Washington ECE teachers must have a minimum of 20 hours of approved training. In 1999, there were no pre-service qualifications necessary to begin teaching in a private ECE setting.

Although only 4 states have improved their entry-level requirements since 1999, 10 states—Alabama, Colorado, Kentucky, Montana, Nevada, New Hampshire, North Dakota, South Carolina, Vermont, and Wyoming—have instead opted to increase the number of ongoing training hours that each ECE teacher must complete on an annual basis (Azer, 1999; Azer & Bowie, 2000; Azer, et al., 2002; LeMoine, 2002). At first glance, these efforts to raise annual training to between 9 and 15 hours a year sound admirable. However, the number of annual ongoing training hours for ECE teachers in private settings throughout the United States ranges from 3 to 24, with the average number of hours being just over 10. In addition, five of the states that raised the number of annual training hours required—Colorado, Kentucky, North Dakota, South Carolina, and Wyoming—currently have no minimum pre-service qualification to begin working as an ECE teacher. Little (1993) argues that professional development should “take explicit account of the contexts of teaching and the experience of teachers.” However, ECE trainings are often not related to the needs or prior learning of teachers, or even to each other in terms of content (Bowman, et al. 2001).

Perhaps even more importantly, the highly-regarded *Eager To Learn* report (Bowman, et al., 2001) recommends that the professional development of early childhood teachers include

participating in teacher education programs that are specifically related to early childhood, and provide a strong knowledge base regarding appropriate teaching practices and child development. Early childhood teachers should have access to regular, ongoing feedback and experience-specific training from leaders and specialists in their field, as well. In addition, the National Commission on Teaching and America's Future (1996) argues that *all* teachers—regardless of grade level—need a full-year, supervised internship under the mentorship of experienced teachers, as well as ongoing professional development that is linked to the current teaching and learning activities in their classroom, informed by current research, and allows for opportunities for continued learning through “ongoing conversations and coaching” (p. 43).

Barriers to improving ECE teachers' qualifications

Complicating the goals advocated by *Eager to Learn* (Bowman, et al., 2001) and the National Commission (1996), however, are the various settings where one might work as an ECE teacher—including public schools, private preschools, child care centers, and Head Starts—as well as the different roles teachers play because of the diverse needs of these settings and the children served within them (Isenberg, 2001; National Association for the Education of Young Children, 2001). Additionally, in this country there are “no state or national standards or certification processes for teachers of young children” (Bowman, et al., 2001, p. 261), and as a result, there are wide variances in the educational background and experience one needs to begin working as an ECE teacher. As can be seen in Figure 1, minimum pre-service requirements for teachers in state-financed preKs range from holding the Child Development Associate (CDA) credential to a Bachelor's (BA) degree with a specific early childhood endorsement.

Figure 1 – Pre-service requirements for teachers in state-financed PreKs

Child Development Associate (CDA)	Arizona, Colorado, Connecticut, Delaware, Florida, Iowa (in private ECE setting), Massachusetts (if in private ECE setting), Missouri, Oregon, Vermont (if in private ECE setting), Virginia
Associate's degree (AA)	Ohio (by 2008)
AA in Early Childhood or equivalent	Alabama, Georgia, North Carolina, Washington
College Credits in Early Childhood	California (24 credits)
Bachelor's (BA) degree without specific Early Childhood endorsement or equivalent	District of Columbia, Louisiana, Maine, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, West Virginia, Wisconsin
BA with specific Early Childhood endorsement or equivalent	Arkansas, Illinois, Iowa (if in public school setting), Kansas, Kentucky, Maryland, Massachusetts (if in public school setting), Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont (if in public school setting)

Source: National Center for Early Development & Learning (NCEDL), 2001

Author's note: Alaska, Hawaii, Idaho, Indiana, Mississippi, Montana, New Hampshire, North Dakota, South Dakota, Utah, and Wyoming do not have state-financed preKs

The starting points for teachers in *private* ECE settings, however, vary even more than those who teach in state-financed preKs. As can be seen from Figure 2, most states do not require any college coursework to begin teaching in a community-based ECE setting. In some states teachers in these settings may enter the field without even a High School diploma, and although of obvious importance, "minimum qualifications" may merely mean passing a criminal records and/or child abuse registry check (e.g. Iowa Early Care and Education Professional Development Project, 2000). Despite whether one attributes these widely varying attitudes towards necessary qualifications to work in an ECE setting on a misleading distinction between early childhood

Figure 2 – Pre-service requirements for teachers in private ECE centers

No requirements	Alaska, Arizona, Arkansas, Colorado, Connecticut, Idaho, Indiana, Iowa, Kentucky, Louisiana, Maine, Michigan, Mississippi, Missouri, Nebraska, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, Virginia, West Virginia, Wyoming
10 clock hours or less of training	Georgia (10 hours within 1 st year of working), Montana (8 hours within 1 st year of working), Nevada (3 hours within 1 st year of working), Texas (8 hours)
11-20 hours of training	Alabama (12 hours), Washington (20 hours)
More than 20 hours of training	Delaware (60 hours plus 1 year experience), Florida (40 hours), Maryland (90 hours plus 1 year experience), Wisconsin (2 non-credit ECE courses plus 80 days experience)
Child Development Associate (CDA)/ Certified Child Care Professional (CCP)	District of Columbia, Hawaii (plus 1 year experience), Illinois, Kansas (plus 1 year experience), Minnesota (plus 1,560 hours of experience), New Jersey (plus 6 credits in Early Childhood or related field)
College coursework in Early Childhood or equivalent	California (6 semesters), Massachusetts (2 year vocational child care course), Vermont (12 credits plus 3 years Experience)
Associate's degree (AA) in Early Childhood or equivalent	New Hampshire (2 year vocational child care course)
Bachelor's (BA) degree	Rhode Island (but must meet standards for state Early Childhood certificate, with 24 Early Childhood Education credits and 6 credits in student teaching)

Source: Azer, et al., 2002; LeMoine, 2002.

Author's note: Of the states that have no requirements for teachers in private ECE centers, Alaska, Idaho, Indiana, Mississippi, North Dakota, South Dakota, Utah, and Wyoming also do not have any state-financed preKs.

education and the type of "real" education that begins in Kindergarten (Bowman, et al., 2001; Hinkle, 2000; Lavery, Burton, Whitebook, & Bellm, 2001), or the "folk belief" (Genishi, Ryan, Ochsner, & Yarnall, 2001, p. 1183) that one merely needs to possess maternal qualities to be "suitable" for the job (Nelson, 2001), the end result is that as a profession, early care and education often employs minimally-educated teachers (Saluja, et al., 2002; Burton, Whitebook, et al., 2002).

Further complicating teachers' efforts to reach the goals advocated by the *Eager to Learn* (Bowman, et al., 2001) report and the National Commission (1996) are the minimal salaries that dominate in the ECE field, ranging from an average low of \$6.25 per hour for child care workers in Louisiana, to \$12.61 per hour for preschool teachers in the District of Columbia (Lavery, Siepak, Burton, Whitebook, & Bellm, 2002). As a profession, ECE often pays less than what one could earn pumping gas, trimming trees, or serving food (Lavery, et al., 2001; Whitebook, Sakai, Gerber, & Howes, 2001). Because of the low hourly wage, researchers have characterized those holding these jobs as "the working poor" (Whitebook & Phillips, 1999, p. 1), residing in a "new low-wage ghetto" (Burbank, 1994, p. 1), with a "higher concentration of poverty-level jobs than almost any other occupation in the United States" (Lavery, et al., 2001, p. 3). Inadequate pay, minimal benefits, and energy-demanding days not only translate into a staff turnover that averages around one-third each year, but offer little incentive to assume additional professional development costs, as well (NCEDL, 1997; Whitebook, et al., 2001).

In addition, Saluja, Early, and Clifford (2002) found that the average ECE teacher is 39 years old. Various researchers suggest there are corresponding problems and constraints just from being an adult learner, including one's ongoing personal and professional responsibilities and the logistical hurdles that can make it difficult to actually attend class, especially in a college

setting (Carp, Peterson, & Roelfs, 1974; Cross, 1981). Horn and Carroll (1996) argue that not only is degree attainment hampered by delayed enrollment in college, part-time attendance, concurrent full-time employment, and non-spousal dependents, but that the "family and work responsibilities" of older women students, in particular, often make it difficult to find enough time to complete individual course requirements (p. 2). Indeed, teacher preparation programs across the United States have found that one of the biggest challenges to increasing the qualifications of ECE teachers is the "competing work or family related responsibilities" of their students (Early & Winton, 2001, p. 297).

Financial professional development efforts

Because of the minimal paychecks most ECE teachers receive, as well as the costs associated with increasing qualifications, particularly for college-level coursework, at least 23 states offer some type of monetary assistance to individuals who wish to improve their professional knowledge regarding appropriate early childhood teaching and practice. These financial efforts include variations on the Teacher Education and Compensation Helps (T.E.A.C.H.) initiative, which offers scholarships or financial incentives to ECE teachers to obtain their Child Development Associate (CDA) credential, Associate's, or Bachelor's degree, as well as bonuses or raises to staff who voluntarily pursue additional education (Montilla, Twombly, & De Vita, 2001; Vecchiotti, 2001). When recently surveyed by the Wheelock College Institute for Leadership and Career Initiatives (2002), states cited the T.E.A.C.H. initiative as the number one accomplishment in career development initiatives. Some examples of financial professional development efforts:

- Colorado participates in T.E.A.C.H. (Colorado Office of Resource and Referral Agencies, 2002), and has also begun an Early Childhood Professional Loan Repayment Program that provides up to \$2000 over two years of center employment to teachers graduating with an AA in early childhood (Colorado Student Obligation Bond Authority, 2002).
- In anticipation of the Illinois Preschool program, which proposes to both offer expanded access to quality preschool for every three- and four-year old and place a certified teacher in every participating classroom by the year 2012, the state's T.E.A.C.H. initiative had resources of over \$2 million for FY 2002. The governor's office has instituted the Great START program, which utilizes over \$3 million to "reward child care personnel for attaining education" (Futures for Kids, 2002, p. 1; Governor's Task Force on Universal Access to Preschool, 2001).
- Funded by the Maine Department of Human Services, the Maine Roads Scholarship Program provides funds for ECE teachers who are enrolled in for-credit CDA programs, as well as AA, BA, MA, or doctoral programs in the state of Maine that are related to child care or early education (Child Care and Early Education Career Development Center, 2002). This effort is aided by the *Guide to Higher Education for Child Care and Early Childhood Education Careers in Maine* (Early Childhood Higher Education Committee, 2000), which lists contact and coursework information for all of these programs, and is disseminated through the Child Care and Early Education Career Development Center at the Muskie School of Public Service.
- In North Carolina—where the T.E.A.C.H. initiative began in 1990—the program has become an "umbrella" for various related projects, including helping child care centers

provide health insurance for their employees, and W.A.G.E.\$, which provides bonuses of \$100 to \$700 or raises of 4-5% after employees complete their educational requirements. The T.E.A.C.H. Early Childhood Scholars Program also provides scholarships to students who are not yet teaching, but are close to graduating with a BA in Child Development. Because T.E.A.C.H. recipients are required to commit to working in an ECE center for six months to one year, this effort has also been used as a recruitment tool (Child Care Services Association, 2002). In addition, North Carolina uses a rated license standard to assess the overall quality of a center, and staff education levels count for one-third of the total score. Centers with more stars receive bonuses in addition to their regular per-child reimbursement (North Carolina Division of Child Development, 2002).

- Texas offers child care workers \$1,000 through the "Train Our Teachers Awards" program, which can be used to obtain a CDA, CCP, AA in Early Childhood, or Level One Certificate in Child Development at any in-state college or university. Teachers must agree to work for at least eighteen months in a licensed child care facility after receiving the award and completing their coursework (College for Texans, 2002; Texas Workforce Commission, 2002).

Early Childhood Educator Professional Development Program

No Child Left Behind (NCLB), President George W. Bush's attempt to improve public schooling and ensure that the country's neediest children are not left to languish in poor-quality schools, has been described by the Bush administration "the most sweeping reform of the Elementary and Secondary Education Act (ESEA) since it was enacted in 1965" (U.S. Department of Education, 2002c, p. 1). The emphasis on reaching statewide proficiency goals,

giving families who attend failing Title I schools the opportunity to obtain tutors or attend a different school, and helping all children read by the end of third grade is designed to offer the country's most disadvantaged children some hope that they will, indeed, receive the type of education that will not "leave them behind" their more affluent peers (U.S. Department of Education, 2002b).

One aspect of the NCLB Act is the "Improving Teacher Quality Program," which aims to "put a highly-qualified teacher in every public school classroom by 2005" (U. S. Department of Education, 2002c, p. 2). Although the focus of this effort is the significant numbers of this country's math, science, history, and English teachers—particularly in the middle and high school grades—who have not received adequate preparation for teaching in these subjects (U.S. Department of Education 2002d; 2002e), there has been an acknowledgement by the federal government that the minimal educational and training backgrounds of most ECE teachers impacts the pre-reading and language skills of the country's most disadvantaged children (U. S. Department of Education, 2001).

As a result, the *Early Childhood Educator Professional Grant Program* provides a competitive funding stream through Title II of NCLB that states, educational consortiums, and/or institutions of higher education can apply for in order to improve the training and professional development of ECE teachers who work with disadvantaged children. Although grantees may need to contribute 50% of the total cost of the project (NAEYC, 2002), in fiscal year 2001, \$9.6 million dollars were awarded projects in eight states (U. S. Department of Education, 2001), and almost \$15 million dollars were due to be awarded for fiscal year 2002 (U. S. Department of Education, 2002a). Based on the abstracts submitted to the U. S. Department of Education Early

Childhood Educator Professional Development Program (2002), some of the efforts so far include:

- The *Program for At-Risk Infants, Toddlers, and Young Children* (PARITY) in Florida, which offers classroom mentoring, classroom observation and feedback, and for-credit coursework for 67 ECE teachers who work with children in Head Starts, ECE centers, and family child care homes. Participants also receive a stipend upon completion of their coursework.
- The *Leaders in Literacy* program in Mississippi, which will enable teachers in two ECE centers to increase their knowledge about literacy instruction through small group sessions led by instructors from Mississippi State University. Each classroom will have a literacy mentor to demonstrate research-based practice, and staff will receive scholarships to receive their CDA, AA, or BA at local colleges and universities.
- *Early Strategies for Urban Child Care, Education, Support, and Services* (SUCCESS) will enable 200 ECE teachers in Hamilton County, Tennessee to receive 80 hours of intensive language and literacy skill development training through a collaboration of the University of Tennessee and eight local education and/or service agencies. Early SUCCESS will also develop training modules and videotapes demonstrating appropriate early literacy strategies for dissemination throughout the state.
- *Partnerships for Early Childhood Educators in Rural Communities* (PERC) will enable 300 teachers from Head Start, Migrant Head Start, and private ECE centers in rural Washington and Oregon to participate in an eight-month, in-classroom professional development program. In addition to classes, participants receive coaching and feedback, as well as effective classroom strategies that promote literacy and school readiness.

Career Lattices

Even for states with funding to help ECE teachers improve their knowledge base and training, because of the minimal requirements to begin working as an ECE teacher in many of the states, reaching the goals advocated by *Eager to Learn* (Bowman, et al., 2001) and the National Commission (1996) is a daunting task, especially given the wide variety of trainings, workshops, and non-credit classes that are sometimes available for ECE staff, and the fact that many ECE teachers may not have any experience with participating in for-credit, college coursework. As a result, in an attempt to articulate what steps ECE teachers should take in order to increase their credentials, many states have implemented voluntary career lattices that describe the education, experience, and/or skills necessary to increase one's teaching qualifications. Some of the career lattices mirror the National Commission's characterization of professional development, as seen in Figure 3:

Figure 3 – Professional Continuum for Teacher Development



Recruitment to a teacher education program based on academic background and ability to work with children	Pre-service preparation in an NCATE-accredited school of education	Initial intern license based on INTASC tests of subject matter & teaching knowledge	New teacher induction: 1-2 yrs. of early career mentoring & evaluation	Continuing license based on performance assessments, evaluations, and student work	Ongoing professional development in and out of the classroom	Advanced certification based on MBPTS performance assessments & exams
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Source: National Commission on Teaching & America's Future, 1996, p. 67.

For the National Commission (1996), ongoing professional development is not only "critically important" (p. 82), but "should create a continuum of teacher learning...from recruitment and

pre-service education through licensing, hiring, and induction into the profession, to advanced certification and ongoing professional development” (National Commission on Teaching & America’s Future, 1996, p. 63), as well. Examples in states’ early childhood programs include:

- California’s “Child Development Permit” matrix—available in English, Chinese, and Spanish—has six levels, ranging from assistant teacher to program director (see Figure 4).
- 4). Level One reflects the licensure regulations to begin teaching in a private ECE

Figure 4 – California’s Child Development Permit Matrix

Title	Education	Experience	5-Year Renewal Requirements
Assistant	6 units/credits Early Childhood Education (ECE) or Child Development (CD)	None	105 hours of professional growth
Associate Teacher	12 units ECE/CD, including core courses or a CDA	50 days of 3+ hours/day within 2 years	Must meet teacher requirements with 10 years
Teacher	24 units ECE/CD including core courses + 16 general education units or AA or higher in ECE or related field, with 3 semester units supervised field experience in ECE setting	175 days of 3+ hours/day within 4 years	105 hours of professional growth
Master Teacher	24 units ECE/CD including core courses + 16 general education units + 6 specialization units + 2 units adult supervision	350 days of 3+ hours/day within 4 years	105 hours of professional growth
Site Supervisor	AA (or 60 units) with 24 units ECE/CD including core courses + 6 units administration + 2 units adult supervision	350 days of 3+ hours/day within 4 years, including at least 100 days supervising adults	105 hours of professional growth
Program Director	BA with 24 units ECE/CD including core courses + 6 units administration + 2 units adult supervision	Site supervisor status + 1 program yr. of site supervisor experience	105 hours of professional growth

Source: Child Development Training Consortium, 2002

setting, which requires six units of college coursework in Early Childhood Education or Child Development. Competencies at each level are articulated in an extensive guidebook authored by the Advancing Careers in Child Development Project (1999) through Pacific Oaks College.

In addition, 94 of the state's 108 community colleges work with the Child Development Training Consortium to reimburse ECE teachers for part or all of the tuition and book fees as each community sees fit. First time permit applicants may also be eligible for funds to pay for application and fingerprinting costs. Unique to California's matrix is the requirement that each participant have a "Professional Growth Advisor," who not only mentors permit holders, but assists in determining professional development goals and renewal requirements to help teachers advance through the career ladder, as well. The Professional Growth Advisors must have a minimum of a teaching credential and two years experience in an early childhood setting, and are supported through trainings, ongoing networking sessions, and instructional videos offered in both English and Spanish. (Child Development Training Consortium, 2002; State of California Commission on Teacher Credentialing, 2001; The California Early Childhood Mentor Program, 1998).

- Although Colorado has no regulatory minimum pre-service requirement to begin teaching in a private ECE setting, the state does have a voluntary, six-level Early Childhood Professional Credential, which ranges from completion of coursework regarding Colorado's Core Knowledge and Standards to a Doctoral Degree. The education requirement for each level is derived from Colorado's Core Knowledge and Standards: A Guide for Early Childhood Professional Development. Level I can be held for three years before renewal is needed; Levels II through VI must be renewed after five years.

Figure 5 – Colorado's Early Childhood Professional Credential Career Lattice

Level	Education	Experience	Renewal requirements
I	90 Hours of training or coursework	None	Training and/or coursework covering Level II
II	Training and/or coursework that covers Levels I & II	2 years	6 semester credit hours
III	AA degree	1 year	6 semester credit hours
IV	BA degree	1 year	6 semester credit hours
V	Master's degree	2 years	6 semester credit hours or major professional contribution
VI	Doctoral degree	2 years	6 semester credit hours or major professional contribution

Source: Colorado Early Childhood Professional Credential Office, 2002

- Connecticut's 17 level Charts-A-Course is supported by the Department of Social Service, Department of Education, and the state's community colleges, and provides individualized career counseling, as well as an agreement regarding transfer of 18 community college early childhood credits to the state's four-year colleges (Connecticut Charts-A-Course, 2002).
- Massachusetts's *Advancing the Field* is a program utilizing federal special education funds to advance ECE teachers through a career ladder (Massachusetts Department of Education, 2002). Funds are awarded on a competitive basis to two- and four-year colleges, as well as to other non-profit professional development providers, which can pay for tuition, books, conference attendance, or child care for ECE teachers who are utilizing the career ladder. The students—many of whom are nontraditional learners—also have access to career counselors, who help them navigate through the often

unfamiliar world of higher education (personal conversation with Joni Block, Program Coordinator, September 17,2002).

- As seen in Figure 6, Montana's Early Care and Education Career Path ranges from a pre-professional level that reflects the current licensing requirements to be an ECE teacher, to a doctorate in Early Childhood Education or Child Development. With the exception of the pre-professional level, which requires minimum ongoing training of 8 hours per year, all levels require a minimum of 15 hours of ongoing training each year. In addition, Levels III through VIII require membership in a professional early childhood organization.

Figure 6 – Montana Early Care and Education Career Path

Level	Minimum Training	Experience required
Pre-professional	8 hours orientation plus CPR/First Aid certification	Currently working in an EC setting
I	8 hours orientation plus CPR/First Aid certification and High School diploma or GED	Minimum 500 hours working in an EC setting
II	CPR/First Aid certification and High School diploma or GED + 60 hours approved training	Minimum 500 hours working in an EC setting
III	CDA credential + 120 hours approved training	Minimum 1000 hours working in an EC setting
IV	CDA credential + 20 or more college credits in ECE, or 1 year certification requiring 30 college credits	Minimum 1000 hours working in an EC setting
V	AA degree in ECE/CD, including 20 credits in ECE and 300 hours supervised teaching experience	Minimum 1000 hours working in an EC setting
VI	BS/BA degree in ECE/CD or related field with Montana EC Permissive Special Competency	Minimum 1000 hours working in an EC setting
VII	Master's degree in ECE/CD or related field with ECE emphasis	Minimum 1000 hours working in an EC setting
VIII	Doctorate in ECE/CD or related field with ECE emphasis	Minimum 1000 hours working in an EC setting

Source: Montana Early Childhood Project, 2002a.

It should also be noted that since 1999 Montana has provided scholarship funds in excess of \$150,000 to assist ECE teachers' progress through levels III through VIII of the Early Care and Education Career Path (Montana Early Childhood Project, 2002b), and non-credit, professional development is available from approved trainers in accordance with the Montana Early Care and Education Knowledge Base content areas (Montana Early Childhood Project, 1998).

- New Mexico's career lattice has six levels, with each level offering greater knowledge and skills of seven Common Core Content areas. As a result of a three-year funding collaboration with the W. K. Kellogg Foundation in the late 1990s, the initial forty-five hour entry-level training is now offered in English, Spanish, and Navajo. In addition, not only is CDA training available for college credit (Level II), but there is universal articulation among the state's two- and four-year colleges for all courses that lead to a BA (Level V), as well (Haggard, 2002; Mactavish & Mactavish, 1999; Office of Child Development/Children, Youth & Families Department, 2002; Turner & Haggard, 2001).
- South Carolina has a nine-level career lattice, reflecting entry-level licensure (Step 1), as well as the state's two Early Childhood credentials (Steps 2 & 3) for both center-based and family care providers. The credentialing steps were created in an attempt to standardize the minimum professional knowledge and competencies of all ECE staff working in the state, and training is offered at the state's sixteen technical colleges. After completing the credential, ECE teachers receive a \$200 bonus. In addition, South Carolina participates in T.E.A.C.H., which pays 80% of tuition costs for ECE teachers who wish to obtain their Early Childhood Credential or Associate's degree (Step 7), and reimburses 80% of books costs and provides a \$40 travel stipend per semester, as well. As an additional retention incentive, teachers who complete between 9 and 15 credits of

college coursework receive either a \$300 bonus or a 2% increase in salary (Center for Child Care Career Development, 2002a; 2002b; 2002c).

- Utah offers cash bonuses—ranging from \$100 to \$1,000—for completion of each of the 10 successive levels of its career ladder. The courses one needs to attain any of the first three levels are standardized across the state, and are available through the six child care resource and referral agencies located throughout Utah. Utah's Office of Child Care website also lists for-credit courses that are applicable towards attaining various levels of the ladder, and information regarding applying for a state scholarship that will cover the cost of the CDA direct assessment fee (Utah Department of Workforce Services, 2002; Utah Office of Child Care, 2002).

Apprenticeship efforts

Through the Quality Child Care Initiative, the U. S. Department of Labor has been providing competitive-based grants to fund state child care apprenticeship initiatives since 1999. The apprenticeship programs combine on-the-job training in an ECE setting with Early Childhood classroom instruction, with the goal of developing professional early care and education providers that can meet the needs of this country's workforce, and at the same time, improve the overall quality of child care. Apprenticeship projects also receive technical assistance from the Wheelock College Institute for Leadership and Career Initiatives. Since the inception of the program, over \$10 million has been awarded to 31 states and the District of Columbia (personal correspondence from Herb Green, Contracts and Grants Officer, October 22, 2002; U. S. Department of Labor, 2002; Wheelock College Institute for Leadership and Career

Initiatives, 2001). Although funding for states in the first cohort has already ended, these federally-funded apprenticeship initiatives have included:

- Use of a seven-level career lattice in Indiana—one of the first states to participate in the program—to guide Child Care Apprentices through 4,000 hours of on-the-job training. The program also used trained mentors and required participants to obtain both a CDA and college coursework (Indiana Department of Education, 2000; Indiana Professional Development System, 2001).
- Kansas—which was also funded in the first round of the Quality Child Care Initiative—used the program to enable ECE teachers to gain hands-on experience in meeting the *Core Competencies for Early Care and Education in Kansas and Missouri* (2000). Participants completed 20 credits of early childhood coursework from either a local community college or Emporia State University, and received a CDA, as well. Supervision was provided by journeyworkers/mentors, who had a minimum of 2 years ECE experience and 20 credits in Early Childhood or Elementary Education (Executive Council for Kansas Early Childhood Associate Apprenticeship Program, 2001).
- Nevada's apprentices received free tuition in order to take classes at one of the four community colleges in the state, as well as a \$100 bonus each semester if they received a C or better in their coursework. Centers that served as sponsors received a \$500 yearly stipend, and mentors—who needed to have a minimum of 15 credits in Early Childhood—received scholarships to pay for their own continuing early childhood coursework (Nevada Child Care Apprenticeship Program, 2000).
- Vermont used much of their Department of Labor grant to fund increases of between \$.25 and \$2.00 in the hourly compensation for both apprentices and their supervisors.

Participating apprentices also received 18 college credits, as well as their CDA (Thorsen, 2001; Vermont Child Care Industry and Careers Council, Inc., 2001).

- Washington, D. C. apprentices gained 28 credits towards an AA degree from the Early Childhood Leadership Institute at the University of the District of Columbia, and were supervised by mentors with at least five years of experience and a BA in Early Childhood. They also received increasing wages throughout their two years in the program, based on the 2000 Child Development Specialist pay rate of \$10 per hour (DC Apprenticeship Council, 2000).

Other efforts

Although most states' efforts involve financial incentives or career lattices, other states have designed unique programs to help improve the credentials of their ECE teachers:

- Designed for community-based ECE teachers, Delaware's *First Core Curriculum* is available statewide and meets the requirements for the CDA credential. The trainings are also offered at three different skill levels. In addition, other professional development resources are offered both at Resources Centers and through mobile resource vans (Office of Child Care Licensing, 2002).
- Massachusetts' Springfield Technical Community College offers a 29-credit Early Childhood Education Certificate taught entirely in Spanish. The coursework will articulate towards an AA at the college, and an AA or BA degree in Early Childhood at the University of Puerto Rico, or a BA at the University of Massachusetts (Springfield Technical Community College, 2002).
- Similar to the tiered reimbursement available to centers in North Carolina and detailed above, centers in Tennessee may participate in a voluntary, three-star program and

receive higher state reimbursements when teachers have attained educational qualifications beyond what is required for licensure. Centers with one star receive a 5% bonus reimbursement rate, while three-star facilities receive 20% (Tennessee Department of Human Services Child Care Services, 2002; University of Tennessee College of Social Work Office of Research and Public Service, 2002). In addition, the Tennessee Early Childhood Training Alliance (TECTA) offers 30 hours of entry-level training at no cost to participants, and in each of the state's 95 counties. TECTA also offers financial assistance for ECE teachers who wish to obtain a CDA or AA (Child Care Partnership Project, 2002).

Summary

At first glance, all of these efforts at increasing ECE teachers qualifications would seem to be unnecessary if states would merely increase their licensing regulations and adopt a uniform standard for those who teach our nation's three- and four-year olds, much like the requirements in place for Kindergarten teachers. However, turnover at private ECE centers throughout the United States is already between 20-60% (Lavery, et al., 2001), and given the average salaries of the ECE workforce, one wonders how many college graduates holding teacher certification would willingly enter—and remain—in the field. Indeed, as a result of a court mandate in New Jersey that requires preschool teachers in the 30 "Abbott" districts to obtain a BA and Preschool-Grade 3 certification, Head Start programs in some of the Abbott districts apparently have "lost more than 125 certified teachers in the last three years," due to the "higher compensation packages" offered by in-district preschool programs (Abbott VIII, 2002, p. 8). Without addressing compensation issues, one also wonders, then, how many ECE centers would be

forced to close their doors due to lack of qualified staff if licensing regulations were raised across the board.

Fully-financed education - Although the United States is arguably a long way from establishing one standard for ECE teachers, however, looking at all of these efforts suggests there are practices that seem to offer promise not for only improving teachers' qualifications, but most importantly, for contributing to the quality of early care and education throughout the country, as well. First and foremost, because even shorter-term education translates into more appropriate classroom practice and knowledge (Cassidy, Buell, Pugh-Hoese, and Russell, 1995; Cassidy, Hicks, Hall, Farran, & Gray, 1998; Horn-Wingerd, Caruso, Gomes-Atwood, & Golas, 1997), any of the efforts at increasing the educational credentials of ECE teachers seem to be worthwhile. However, given the minimal salaries that dominate the ECE field and the differing licensure requirements even within states, a combination of full financial support and career lattices seem crucial for providing the means and framework for the type of purposeful training and professional development that will result in higher classroom quality. Programs that are free or provide full reimbursement for coursework are particularly essential, such as the free entry-level training in Tennessee, and the educational aspects found in many of the apprenticeship programs.

Overcoming language barriers - As important as recognition of teachers' financial constraints, however, are the educational efforts that take into account "where teachers are," so to speak, in terms of language, previous educational experience, and proximity to trainings and coursework. Thus efforts at providing both career lattices and coursework in languages other than English—such as California's matrix being available in Chinese and Spanish, New Mexico's offering of its initial entry-level training in Spanish and Navajo, and Springfield

Community Technical College's early childhood certificate coursework being offered entirely in Spanish—hold promise as particularly useful models for other states. Not only do these efforts acknowledge the cultural background of the teachers, but they would seem to help draw a more diverse group of staff to ECE centers, and in turn help establish stronger home-school connections and language development, particularly for Latino families (Eggers-Piérola, 2002; Fuller, Eggers- Piérola, Hollaway, Liang, & Rambaud, 1996; Rodríguez, Díaz, Duran, & Espinosa, 1995).

Helping non-traditional learners - In addition, many ECE teachers are "nontraditional learners," in the sense that they often come to post-secondary education not only with increasing work and personal responsibilities, but also with very little experience in dealing the higher-education maze of finding and registering for appropriate coursework. Accompanying this confusion may be a sense of insecurity about their academic abilities (Jones & Watson, 1990; Padron, 1992; Richardson & Skinner, 1992). Thus, efforts to provide guidance to ECE teachers as they work toward improving their credentials—such as the Professional Growth Advisors available to teachers in California or the career counselors in Massachusetts, as well as the *Guide to Higher Education* (Early Childhood Higher Education Committee, 2000) which details available coursework and contacts in Maine and the online listing of career-ladder coursework in Utah—seem worthy of replication in other states.

Articulation and access - As nontraditional learners, many ECE teachers may find CDA coursework or community college classes much less threatening than four-year institutions of higher learning. However, lack of articulation between two- and four-year colleges has been categorized as "one of the most important barriers" (Phillips & Jordan, 1999, p. 7) to pursuing the type of education advocated by the *Eager to Learn* (Bowman, et al., 2001) report (Cassidy,

Hestenes, Teague, & Springs, 2000; Early & Winton, 2001). Thus, programs that have already addressed articulation problems—such as in New Mexico—may offer another strategy for helping to improve ECE teachers' credentials.

In addition, funding for coursework means little if teachers cannot access classes in their off hours. Courses or trainings that come to the teachers' classrooms—such as the professional development offered in Mississippi through the federally-funded Early Childhood Educator Professional Development Program—are particularly noteworthy. Efforts to provide identical entry-level trainings throughout a state—such as the training offered in each of Tennessee's 95 counties and at all of South Carolina's technical colleges—are also notable, as this type of consistency would seem to reduce confusion as to what classes "count," and ensure a minimal knowledge base among beginning teachers, as well.

Collaboration – Finally, in examining the state programs that seem to address most of the constraints facing ECE teachers who wish to improve their credentials, one finds intense collaborations between state agencies, two- and four-year institutions of higher education, non-profit agencies, and consortiums. In California, for example, a statewide approach to improving ECE teachers' qualifications involves the State Commission on Teacher Credentialing, almost all of the community colleges in the state, Pacific Oaks College, the Child Development Training Consortium, and the California Children and Families Commission. In addition, specifications regarding all levels of the Child Development Permit are clearly articulated through the *Competencies* guide (Advancing Careers in Child Development, 1999), and there is also a guidebook designed to assist teachers as they move forward with their professional development (Brown, 2002).

Although this study did not examine the outcomes of any of the programs described herein, these efforts suggest that improving the credentials of ECE teachers probably requires more than merely authoritatively raising either pre-service requirements or the number of ongoing training hours, or putting together a voluntary career lattice. Even the incentives of partial scholarships may not be sufficient to induce teachers to attend classes after working all day in such an energy-demanding job, particularly if their wages will not increase even after increasing their credentials. Multi-agency collaborations, however, suggest that goals and implementation strategies have been well thought out, and do not rely solely on "leaps of faith" (Weiss, 1998, p. 67). One also suspects the capacity of these efforts is greatly improved through intensive collaborations, as teachers will be more likely to participate in a successful manner because they—and everyone else involved—are "properly informed and have the necessary resources" (Schneider & Ingram, 1990, p. 518) to reach that goal. We know high-quality early care and education benefits not only young children and their parents, but society as a whole, too. These efforts show promise for giving early care and education teachers the means for turning that realization into reality.

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Appendix

Comparison of State-by-State Efforts to Improve the Qualifications of ECE Staff in Private Centers and Minimum Degrees Necessary to Teach Kindergarten

Key: AA-Associate's degree; BA-Bachelor's degree;
CDA-Child Development Associate credential; EC-Early Childhood;
ECE-Early Care and Education; K-Kindergarten; PreK-PreKindergarten

State	Minimum degree for Kindergarten teachers ¹	Pre-service requirements/ qualifications for state-financed PreK teachers ²	Pre-service requirements/ qualifications for private ECE settings ^{3, 4} (1999 qualifications ⁵)	2002 Annual Ongoing Training ⁶ (1999 Annual Training Required ⁷)
Alabama	BA with courses or certification in EC	AA in EC or related field	12 hours training in child care & development within 1 st 30 days (1999 - none)	12 hours (1999 - 4 hours)
Alaska	BA	No state-financed preK	None	20 hours
Arizona	BA	CDA	None	12 hours
Arkansas	BA	BA in EC	None	10 hours
California	BA	24 credits in EC	6 post-secondary semesters or equiv. quarter units in ECE	None
Colorado	BA	CDA	None	9 hours (1999 - 6 hours)
Connecticut	BA with courses or certification in EC	CDA	None	1% of hours worked
Delaware	BA with courses or certification in EC	CDA	60 hours ECE training; 1 year experience	15 hours
District of Columbia	BA with courses or certification in EC	BA	CDA, experience	None
Florida	BA	CDA	40 clock hours ECE training (1999 - 30 clock hours ECE training)	8 hours

Georgia	BA	AA in Child Development	10 clock hours of child care training within 1 st year of working	10 hours
Hawaii	BA	No state-financed preK	CDA, 1 year experience	None
Idaho	BA	No state-financed preK	None	4 hours
Illinois	BA	BA in EC	CDA or CCP	15 hours
Indiana	BA	No state-financed preK	None	12 hours
Iowa	BA with courses or certification in EC	BA in EC in public school; CDA in private setting	None	10 hours (1st year) 6 hours (2nd and subsequent years)
Kansas	BA	BA in EC	CDA, 1 year experience	10 hours
Kentucky	BA with courses or certification in EC	BA with Birth-K certification	None	6 hours (1 st year) 12 hours (2 nd and subsequent years) (1999 - 10 hours)
Louisiana	BA with courses or certification in EC	BA	None	None
Maine	BA	BA	None	24 hours
Maryland	BA with courses or certification in EC	BA in EC	90 clock hours in ECE, 1 year experience	3 hours
Massachusetts	BA with courses or certification in EC	BA in EC in public school; CDA in private setting	2-year vocational child care course (1999 - High School vocational program in child care)	20 hours
Michigan	BA	BA	None	None
Minnesota	BA	BA	CDA, 1,560 hours experience	2% of hours worked
Mississippi	BA	No state-financed preK	None	15 hours
Missouri	BA with courses or certification in EC	CDA	None	12 hours
Montana	BA	No state-financed preK	8 hours ECE training in 1 st year	8 hours (first year) (1999 - None)
Nebraska	BA	BA	None	12 hours

Nevada	BA with courses or certification in EC	BA	6 hours EC training in 1 st 6 months	12 hours (1999 - 3 hours)
New Hampshire	BA	No state-financed preK	Completion of 2-year vocational child care course	6 hours (1999 - None)
New Jersey	BA	BA	CDA	8 hours
New Mexico	BA	No information available	None	24 hours
New York	BA	BA	None	15 hours
North Carolina	BA with courses or certification in EC	AA in EC	None	20 hours (with no credential); 10 hours (with CDA or 1 year certificate); 8 hours (with AA); 5 hours (with BA)
North Dakota	BA	No state-financed preK	None	13 hours (30-40 hour workweek); 11 hours (20-30 hour workweek); 9 hours (10-20 hour workweek); 7 hours (<10 hour workweek); (1999 - 10 hours)
Ohio	BA with courses or certification in EC	AA by 2008	None	15 hours annually for 3 years, or until 45 hours have been accrued; staff with higher ed degree or EC credential are not required to undergo any ongoing training
Oklahoma	BA	BA in EC	None	12 hours
Oregon	BA	CDA	None	15 hours
Pennsylvania	BA	BA in EC	None	6 hours
Rhode Island	BA with courses or certification in EC	BA in EC	BA in any field; must meet standards for R.I. EC certificate (24 ECE credits, 6 credits student teaching)	20 hours

South Carolina	BA	BA in EC	None	15 hours (1999 - 10 clock hours training in 1 st year
South Dakota	BA	No state- financed preK	None	20 hours
Tennessee	BA	BA in EC	None	6 hours
Texas	BA	BA in EC	8 hours EC	15 hours
Utah	BA with courses or certification in EC	No state- financed preK	None	20 hours
Vermont	BA	BA in EC in public school; CDA in private setting	12 credits in topics related to ECE, 3 years experience	12 hours (1999 - 6 hours)
Virginia	BA with courses or certification in EC	CDA	None	8 hours
Washington	BA	AA in EC or Child Development	20 hrs. approved training (1999 - none)	10 hours
West Virginia	BA	BA	None	Unspecified
Wisconsin	BA with courses or certification in EC	BA	2 non-credit, dept.- approved ECE courses, 80 days experience	25 hours
Wyoming	BA	No state- financed preK	None	30 hours every 2 years (1999 - 8 hours)

¹ Tryneski, J. (Ed.) (2001). *Requirements for certification for elementary and secondary schools, 2001-2002*. Cited in "Teacher Quality." *Education Week*, 21(17), 2002. Retrieved February 23, 2002, from <http://www.edweek.org/sreports/qc02/templates/article.cfm?slug=17early-sources.h21>. Note: All fifty states require a BA; however, only seventeen require courses or certification in Early Childhood.

² NCEDL. (2001). *Public school pre-K programs: National survey of states*. Cited in "Teacher Quality." *Education Week*, 21(17), 2002. Retrieved February 23, 2002, from <http://www.edweek.org/sreports/qc02/templates/article.cfm?slug=17early-sources.h21>. Note: In state-financed PreK programs, fourteen states require a BA in Early Childhood, and eleven require a BA only.

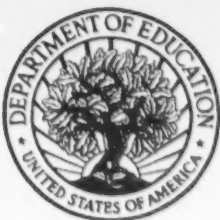
³ Azer, S., LeMoine, S., Morgan, G., Clifford, R. M., & Crawford, G. M. (2002). Regulation of child care. *Early Childhood Research & Policy Briefs*, 2(1). Also available at <http://www.fpg.unc.edu/~ncedl/PDFs/RegBrief.pdf>. Note: Twenty-nine states have no pre-service requirements or qualifications for teachers in private ECE settings, and only four states raised their pre-service requirements or qualifications since 1999.

⁴ LeMoine, S. (2002). *Center Child Care Licensing Requirements: Minimum Pre-service Qualifications and Annual Ongoing Training Hours for Teachers and Master Teachers*. Retrieved January 3, 2003, from <http://nccic.org/pubs/cclr-teachers2002.html>.

⁵ Azer, S. L. (1999). *Child care licensing: Training requirements for roles in child care centers and family child care*. Boston: The Center for Career Development in Early Care and Education. Retrieved June 17, 2002, from <http://ericps.crc.uiuc.edu/nccic.cctopics/cclicensing.pdf>

⁶ LeMoine, S. (2002). *Center Child Care Licensing Requirements: Minimum Pre-service Qualifications and Annual Ongoing Training Hours for Teachers and Master Teachers*. Retrieved January 3, 2003, from <http://nccic.org/pubs/cclr-teachers2002.html>. Note: Five states do not have any requirements for teachers in private ECE settings to undergo additional annual training.

⁷ Azer, S. L. (1999). *Child care licensing: Training requirements for roles in child care centers and family child care*. Boston: The Center for Career Development in Early Care and Education. Retrieved June 17, 2002, from <http://ericps.crc.uiuc.edu/nccic.cctopics/cclicensing.pdf>



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